Minnesota Courts System Integration

Integration Setup Procedures

Version 2.0

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1. Preface

This document explains steps required to setup communication channels with the Court's integration services. Integration services can be accessed via one of the following messaging technologies:

- IBM MQ-Series
- IBM MQ-Series Client
- Web Services/HTTPS (currently in testing)

Revision History:

Revision Date	Person	Description
1/21/05	PM	Created, Version 1.0
4/8/06	TB	Update with SSL and Client
9/16/2006	TB	Update for MQ V6 clients

Questions: If you have questions, please contact Tim Buchholz or Linda Emeott, co-team leads of the Integration Team, in the Information Technology Department, Minnesota Supreme Court.

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2. Administrative Setup

2.1. Submit Information Access Request Form

Submit an Integration Services Agreement and Request Form. See the "Request Access" area of the Integration Services Website www.courts.state.mn.us/is. You will be provided a user id and password to be used on all Integration Service Request

2.2. Submit Communication Channel Request Form

If you are planning to use either IBM MQ-Series or IBM MQ-Series Client you need to submit a Communication Channel Request Form. There is a form specific for each type. These forms provide the Courts MQ-Series administration with information that they will need to create the channels that will provide you access to Integration Services. You will likely be contacted to exchange other information and to test the channels that are being created.

3. Technical Setup

3.1. MQ-Series Setup

This section describes the technical setup steps required if you choose to use IBM MQ-Series. If you are using this communications mechanism it is assumed that you have IBM MQ-Series server installed, and have personnel that are trained in the administration and programming of MQ-Series.

Setting up communication when using MQ-Series involves setting up sender and receiver channels between our 2 queue managers. If multiple environments/queue managers are involved the sender and receiver channels will need to be setup between each.

3.1.1. Networking

The courts network staff will need to write an access list rule to allow your queue manager to communicate with the courts queue manager (IP address and Port). Your network staff will likely have to do the same. The IP addresses and ports are provided on the channel request form. The ports will depend on which port your queue manager is listening on.

3.1.2. SSL

The courts require SSL to be used on all channels with external business partners. You will be provided with a certificate for the courts queue manager, and will be required to provide a certificate for your queue manager to the courts. Generally we have used TRIPPLE_DES_SHA_US as the SSL Cipher Spec.

3.1.3. Channel Names

The Courts standard for naming channels is the following:

For Sender channels the name is the local queue manager name, followed by a period, followed by the remote queue manager name.

Ex:

MSCJB01D.*REQUESTERQM* (courts sender channel)
REQUESTERQM.MSCJB01D (requester's sender channel)

For Receiver channels the name is the remote queue manager name, followed by a period, followed by the local queue manager name.

Ex:

REQUESTERQM.MSCJB01D (courts receiver channel)
MSCJB01D.*REQUESTERQM* (requester's receiver channel)

We need to agree on the channel names.

The courts standard for naming transmission queues is to name them the same as the name of the remote queue manager.

3.1.4. Testing

Once the channels and transmission queues are set up they can be tested by doing a MQ Series Ping. This is done by right clicking on the sender channel and selecting "Ping". A message will be displayed that gives the results of this test. The normal command line "Ping" will most likely not work.

3.2. MQ-Series Client Setup

This section describes the technical setup steps required if you choose to use IBM MQ-Series Client. If you are using this communications mechanism it is assumed that you have IBM MQ-Series Client software installed, and have personnel that are trained in the administration of and programming using MQ-Series clients.

3.2.1. Networking

The courts network staff will need to write an access list rule to allow your client machine to communicate with the courts queue manager (IP address and Port).

3.2.2. SSL

The courts require SSL to be used on all communications with external business partners. You will be provided with a certificate for the courts queue manager, and will be required to configure a SSL key store on your client machine. The following steps can be used to do this:

1. Download the Client SSL Configuration (zip) file from the Integration Services technical overview and setup procedures page. Export its contents into a secure folder on your server. You should have been provided with the password for the zip file. If not contact the courts Integration Services technical contact.
2. Configure the location of the certificate store. To do this set up a system environment variable named MQSSLKEYR with a value that is a path to a key repository file. An example value is "C:\Program Files\IBM\WebSphere MQ\ssl\key" where "key" is the name of the key repository file.
3. Use the IBM Key Management utility to create a key repository (unless you already have one) at the location indicated by the MQSSLKEYR environment variable. In the example above it would be named KEY.kdb and would be located in the folder: C:\Program Files\IBM\WebSphere MQ\ssl. Make sure that you "stash" the password so that it is available to the client software.
4. Use the IBM Key Management utility to import the certificate(s) provided by the court into this key repository. To do this do the following:
    a. Open the key repository
    b. Click Export/Import
    c. Select Import
    d. Change key file type to PKCS12
    e. Browse to the location of the certificate files and select one
    f. Click OK
    g. Enter the password (provided by the court Integration Services technical contact)

3.2.3. Channel Configuration

You will be provided with a client channel table file that contains information on the client channels for the courts queue managers. This file needs to be saved somewhere on the clients file system. Two system environment variables then need to be set up to tell MQ-Series where this file is located.

Environment Variable Name	Value
MQCHLTAB	AMQCLCHL.TAB
MQCHLLIB	Path to where the AMQCLCHL.TAB file is located. Ex: C:\Program Files\IBM\WebSphere MQ

3.2.4. Testing

Once the client has been configured you can test connectivity from the client by performing a get from a test queue. The queue ADMIN_TESTCONNECTION was set up for the purpose. Execute the following from the command line:

amqsgetc ADMIN_TESTCONNECTION MSCJB01D

Substitute the appropriate queue manager name for the 2nd parameter. You should see a message stating "Sample AMQSGET0 start". It should pause for around 10 seconds and then respond with "No more messages" and "Sample AMQSGET0 End". As long as you don't see any error messages the configuration is ok.

3.3. Web Services/HTTPS

This transport is currently in testing. More information will be provided when that testing is complete.

4. Integration Configuration

Please review the technical documentation for the various integration services to identify any additional requirements for setting up access to that service.